DLA-90-P81123

Contractor Purchasing System Review Model

OPERATIONS RESEARCH AND ECONOMIC ANALYSIS OFFICE

DEFENSE CONTRACT ADMINISTRATION SERVICES REGION

DEPARTMENT OF DEFENSE

DEFENSE LOGISTICS AGENCY

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James M. Russell

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I. INTRODUCTION

Contractor Purchasing System Reviews (CPSRs) determine that the systems and practices used by contractors provide maximum protection to the government. They help ensure that contractors conform with Public Law, Federal Acquisition Regulations (FAR), contract clauses, and effective industrial purchasing practices. Contractors with over $10 million in negotiated government contracts are reviewed. DLA reviews over 600 contractors and completes about 500 CPSRs each year.

During each CPSR, analysts from DCAS region offices review a sample of about 200 individual purchase orders from each contractor. Based on certain information about each order (dollar value, contract type, small business concerns, degree of competition, etc.) various compliance issues arise. There are many complex rules. The complexity of the order dictates which of the 30 to 100 specific topics (fields of data) are needed.

A. Project Background. DCASR New York Contract Management Financial Services Division (DCASR NY-AF) requested that DCASR Chicago OR/EA office develop a way to automate CPSRs. The New York office had experienced high turnover of CPSR analysts. They also had difficulty in recruiting qualified people to fill these vacancies. Because CPSRs cover most areas of contracting, analysts require extensive technical knowledge. Training is accomplished on-the-job, during reviews, by more experienced analysts.

At the time the project was undertaken, Battelle Memorial Institute conducted an independent study. They identified several areas, in DLA, which seemed well suited for expert system development. Battelle recommended CPSRs as the top candidate.

From the beginning of the project, HQ DLA Contract Management Financial Services Division (DLA-AF) and Plans, Policy and Systems Division (DLA-AO) have been key participants in the development of the model. While DCASR New York set the initial system benchmarks, DLA-AF took an active roll in ensuring the model was useful agency-wide.

B. Purpose. The purpose of the project was to develop a smart laptop computer based model to assist region analysts perform CPSRs. A knowledge based approach was used for several reasons. DLA has experienced difficulty hiring, training, and retaining purchasing analysts. CPSRs also require a vast amount of contracting knowledge. The system was designed to make applicability decisions and ensure the proper topic review sequence. The overall goal is to provide each CPSR analyst with informed assistance and to guide the review process.

C. Scope. The model covers the entire purchase order review process. It generates all required statistical reports and analyzes trends. Through extensive help windows, the model not only makes decisions but shows the

analyst why decisions were made. DLA-AF has made every effort to ensure that the model is useful DLA wide. The model interfaces with the Contractor Profile System by creating a summary file for each review capable of being transmitted to the mainframe computer at HQ DLA.

II. CONCLUSIONS AND RECOMMENDATIONS

Three DCAS Regions tested and implemented the model: Chicago, New York, and Los Angeles. In all the regions, purchasing analysts made practical recommendations for enhancements which were added to the model. Tests at each of the regions were highly successful.

Early efforts showed the potential for contractors to electronically transmit much of the information collected during a CPSR. Specifically, 20 data items were identified for each purchase order reviewed. These data elements are background in nature and do not deal with compliance. The Contractor Baseline Data Input (CBDI) model promotes the transfer of this information. For contractors with the required data in machine readable form, a PC file layout details the required format. A PC model was also developed for contractors without mainframe computer support. This model allows contractors to manually enter the information on a PC. Electronic transmission of this information before the start of a CPSR will further speed the review process.

Based on the results of the test:

- DLA-AF should adopt the CPSR model and implement it DLA wide.

- DCAS regions, with strong support from DLA-AF and DLA-AO, should aggressively pursue the use of the CBDI model as a means of obtaining background data from each contractor.

- DLA-AF should also promote the electronic transfer of completed CPSR data to the Contractor Profile System.

- DLA-AF should investigate the use of similar system review models in other areas such as Contractor Insurance Pension Reviews and Contractor Estimating Methods Reviews.

III. Benefits

The CPSR model provides a number benefits:

- Gives analysts, while still in the field on a review, improved data analysis capability. It provides instantaneous reporting and informed assistance on compliance issues.

- Enables analysts to show specific results at the exit briefing.

- Increases the accuracy of each review by ensuring the proper review sequence. It also eliminates math and other administrative errors on statistical reports.

- Eliminates the time required to manually prepare statistical reports.

- Standardizes the review process among the regions.

- Trains new analysts by acting as an expert advisor on CPSR issues.

- Saves time collecting the required data elements.

- Provides better access to CPSR data for both analysts and management.

- Ensures consistently comprehensive reviews. The model will give DLA-AF and DCAS region management greater control over each review.

IV. METHODOLOGY

DCASR New York Financial Services Division (DCASR NY-AF) guided the initial system development. They detailed formal CPSR procedures by providing expert policy guidance, test data, and in depth analysis on how to evaluate each purchase order. Several analysts and managers provided insights.

From the beginning of the project, a knowledge based approach was used. By interviewing experts from HQ DLA and the field, rules and procedures were translated into a computer model. It mimics the approach a top CPSR analyst would use in evaluating a purchase order. Rules were set in place which allow the model to intelligently decide on the proper review sequence. Built into the model is a knowledge base of information on Public Laws, FAR, and contract terms and conditions. This allows the model to determine the applicability of various review topics.

The model is written using dBase III, CLIPPER, and SIDEWAYS software packages. These were chosen because they were available, flexible, and able to generate the required reports. The use of an expert system shell was also considered. The specific shells available at the time were not suitable for the process. System development using traditional software, but with an expert systems approach, was judged to be the most effective way to create the model.

The model is completely menu driven. It minimizes the amount of typing required to enter data. Many data entries are menu choices. Most only require pressing "Y" for YES or "N" for NO. At most, it requires a short answer such as a contract number. The user sees only the screens that are appropriate for the particular order reviewed.

Trend analysis can be performed at any time during the review by using a quick summary report option. Summary statistical data for individual data field can be viewed and analyzed. The model generates statistical reports which conform to formal DLA guidance. These reports can be added directly into the final CPSR report.

System requirements include a Zenith 184 (or compatible) laptop computer with 640K of main memory, a hard disk, a 3 1/2 inch floppy disk drive, and SIDEWAYS software package. Also recommended is a battery pack, PCXFER software, and an ALPS 1000p printer.

Analysts from DCASR Chicago performed the majority of the actual system testing. While participating in several actual reviews, further revisions and enhancements were made to make the system more productive. DCASR Chicago analysts provided valuable expertise in the CPSR process which was modeled into the system. The New York and Los Angeles Regions also tested the model and added their suggestions.

Contractor Purchasing System Review Model
Users Guide

Version 3.0

October 1989

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LIST OF FIGURES

I. INTRODUCTION

The Contractor Purchasing System Review (CPSR) model is designed to assist purchasing analysts perform reviews. The model is a series of computer programs, databases, and stored knowledge about CPSR procedures which provide informed review assistance. The model acts as a guide through the data collection process and makes determinations about applicability of public laws and regulations. It automatically generates the many statistical summaries required for the final report. Specialized programs are included to ease the administrative burdens of a review and help identify trends and problem areas.

The purpose of this guide is to familiarize purchasing analysts with the model. It does not supersede formal guidance in Defense Federal Acquisition Regulations Supplement 1 (DFARS). This guide will show how to install the model and define system requirements. It will discuss the various data files created and show how to use the menu options. Part III is a quick reference guide which answers many basic questions with step by step procedures.

The model is totally menu driven. There are four major program sections. The Data Input Section collects and analyzes review data. The Report Writer Section generates statistical reports. The Print Spreadsheets Section prints copies of the spreadsheets sideways on the printer. A fourth option, new to version 3.0. is a specialized Data Input Section which uses data supplied by the contractor.

Parts V, VI, and VII will show how to use the model for a CPSR where all the required data is entered by the Purchasing Analyst. Part VIII shows how to conduct a review when the contractor uses the Contractor Baseline Data Input (CBDI) model to supply background information. CBDI allows the contractor to electronically transfer the first 22 fields of purchase order information (contract number and type, purchase order number and type, vendor name, etc.) prior to the start of a review. Analysts can use this data as an advanced starting point for a review. This will free up time to focus on the more important compliance issues.

II. INSTALLING THE MODEL

All CPSR files will be stored on the laptop in the hard disk drive. Complete system requirements are listed in Appendix E. Before installing the CPSR model on your computer, make sure the PC is set up as shown in the Owners Manual. The word "<enter>" will be used in this guide any time he user is required to press the enter key. Double quotes " " will be used to highlight required keystrokes. The actual double quote marks should not be typed. To install the CPSR model:

1. Turn the computer on (DOS should be installed on the hard disk).
2. Put the CPSR MODEL PROGRAM DISK 1 in the A: drive (Floppy).
3. At the C> prompt, type "A:<enter>".
4. Type "CPSRINST<enter>".

5. Follow the instructions on the screen. The install program will prompt you to put in the PROGRAM DISK 2 when required.

When the install program is completed, the CPSR model will automatically start. In the future, to start the model, type "CPSR<enter>". The SIDEWAYS software package must be installed in the same subdirectory as the model (C:\CPSR\) in order to print copies of the spreadsheets. SIDEWAYS should be configured as shown in Appendix A.

III. CPSR MODEL QUICK REFERENCE GUIDE

This section is a quick "How to" reference for typical CPSR questions. "<enter>" will be used throughout the guide to mean 'press the enter key'. Double quotes (" ") will be used to highlight specific keystrokes required. The actual double quote marks should not be typed. The following are typical CPSR model questions with step by step answers and procedures:

HOW DO I INSTALL THE MODEL ON MY LAPTOP?

1. Turn on the laptop (make sure DOS is installed and running)
2. Put CPSR PROGRAM DISK 1 in the A: drive
3. Set the default disk drive to A: by typing "A:<enter>"
4. Start the install program by typing "CPSRINST<enter>"
5. Follow the on screen instructions. You will be prompted to put insert CPSR PROGRAM DISK 2 when required.

HOW DO I START A REVIEW?

1. Decide on a four character abbreviation for the contractors name. Make sure all analysts on the team stick to this abbreviation.
2. Assign each analyst on the team a file by dollar category. Remember that dollar value is only used to name files and does not effect what data can be entered (i.e. a $15M P.O. can be entered in a file named for under $10K). Make certain each analyst has a unique file and sticks with it throughout the review.
3. Turn the computer on.
4. From the root directory or the CPSR subdirectory, type "CPSR<enter>" to start the model.
5. Type "D<enter>" from the main CPSR menu to start the Data Input Section.
6. Select option 1 to create a file.
7. Enter the four character contractor abbreviated name and the number (from 1 to 4) which corresponds to the dollar value category desired. A file only needs to be created 1 time.
8. Select option 2 to begin adding records to the newly created file.
9. Begin entering data.

HOW CAN I GO BACK TO THE TOP OF THE CURRENT SCREEN AND CHANGE A MISTAKE I MADE?

1. Finish entering the rest of the data on the screen as required.
2. When the Confirmation Area is displayed at the bottom of the screen, type "N" (the <enter> key should not be pressed).
3. This will return you to the top of the current screen. Your previous responses will be the defaults.

HOW CAN I CORRECT A MISTAKE I MADE ON A PREVIOUS SCREEN?

1. At the bottom of each screen, at the CONFIRMATION APEA, select "B".
2. A menu will appear which will ask you to select the screen to return to.
3. Select the number corresponding to the correct screen.
4. The model allows the user to return to one of four places in the record:
   - the very beginning
   - the dates input screen
   - the P.O. header information screen (P.O. number, vendor name, etc.)
   - the SF1411/SF1412 screen.
5. Advance to the place the mistake was made by pressing <enter>. The <enter> key confirms all previously entered data but the user must still press "Y" to advance through the CONFIRMATION AREA.
6. After the mistake has been corrected, continue confirming answers with the <enter> key. Changing mistakes in some fields (e.g. changing the dollar value of the P.O. from $10 to $10,000,000 or changing from competitive to noncompetitive) may cause additional screens to appear. Enter correct data as appropriate.

HOW CAN I CORRECT A MISTAKE I MADE ON A PREVIOUS RECORD?

1. From the DATA INPUT SECTION menu, select option 3 to MODIFY a record.
2. When the MODIFY RECORD SELECTION AREA menu is displayed, press the number that corresponds to the method of record selection you want.
3. Advance to the place the mistake was made by pressing <enter>. The <enter> key confirms all previously entered data and also advances through the CONFIRMATION AREA.
4. After the mistake has been corrected, continue confirming answers with the <enter> key. Changing mistakes in some fields (e.g. changing the dollar value of the P.O. from $10 to $10,000,000 or changing from competitive to noncompetitive) may cause additional screens to appear. Enter correct data as appropriate.

HOW DO I ENTER NOTES ABOUT THINGS I FIND ABOUT THE PURCHASE ORDER THAT WILL NOT BE COVERED ON THE SPREADSHEET?

1. Finish entering the rest of the data on the screen as required.
2. When the Confirmation Area is displayed at the bottom of the screen, type "M" (the <enter> key should not be pressed).
3. This will display a notepad in the bottom right hand corner of the screen. Type your comments on the notepad. Press <enter> to advance through the lines. All narrative comments will be saved with the record and will be printed on the spreadsheets.

HOW DO I TRANSFER DATA FROM A TEAM MEMBERS LAPTOP TO THE TEAM CAPTAINS LAPTOP (OR VICE VERSA)?

1. Make sure that the same machine is used to receive data and print spreadsheets and reports. This decreases the chance of getting confused and writing over the top of a good file. It is also a good idea to make backups of data files on all machines before transferring files. This also decreases the chance of losing data.
2. Make sure both machines are at the Report Writer Section Menu.

3. On the team member's machine (file to be transferred FROM)
   - Put a formatted floppy diskette in the A: drive
   - Select "5" COPY/BACKUP/DELETE FILES
   - Select "1" COPY FROM C: TO A:
   - Identify the appropriate contractor by four character abbreviation.
   - Select the desired file(s) from the menu.
   - After copying is completed, remove the floppy disk and place it in the disk drive of the receiving machine.
4. On the team captain's machine (file to be transferred TO)
   - Make sure the disk with the file(s) to be copied is inserted in the A: drive.
   - Select "5" COPY/BACKUP/DELETE FILES
   - Select "2" COPY FROM A: TO C:
   - Identify the appropriate contractor by four character abbreviation.
   - Select the desired file(s) from the menu.
   - After copying is completed, remove the floppy disk and store.

HOW DO I PRINT SPREADSHEETS?

1. Copy files with most recent data from all team member machines to the team captain's.
2. From the Report Writer Section Menu, select "1" to MERGE files.
3. Identify the files to be merged by the four character name.
4. Exit to the Main CPSR Menu
5. Type "S<enter>" to start the Print Spreadsheets Section.
6. Identify the contractor by four character code.
7. Identify the dollar values to be printed.
8. When the SORT menu appears, select the number which corresponds to the order you want records printed.
9. Make sure the printer is on-line and has plenty of paper. Printing can take up to 15 minutes/spreadsheet.

HOW DO I PRINT STATISTICAL REPORTS?

1. Copy files with most recent data from all team member machines to the team captain's.
2. From the Report Writer Section Menu, select "1" to MERGE files.
3. Identify the files to be merged by the four character name.
4. From the Report Writer Section Menu, select "3" to print formal statistical reports.
5. Identify the contractor by four character code.
6. Make sure the printer is on-line and has plenty of paper.
7. If you have not entered sales data for the contractor, select "1" to enter sales data.
8. Select desired report(s) from the menu.

HOW DO I ENTER DATA FOR A CATALOG ITEM?

1. If the item is a valid catalog or published price list item:
   - When asked if the P.O. is competitive, type "C".
   - When asked for Method of Price Analysis, select "3" for Catalog or Published Price Lists.

- Item will be counted as a separate type of competitive order in statistical report.

2. If the item is not a valid catalog item:
   - When asked if the P.O. is competitive, type "Y" or "N".
   - Complete rest of record as appropriate.

HOW CAN I CHANGE MY RESPONSES TO THE FIRST QUESTIONS ASKED; IS THE CONTRACTOR A SMALL BUSINESS AND DID THE CONTRACTOR PASS HIS MOST RECENT CPSR?

1. These two questions are normally asked only once at the beginning of each review. Responses are then stored in a special memory file which the model can access whenever required. The model reminds you of your responses on the first screen in the ADD records option. This memory file must be deleted in order to change your responses.
2. At the DOS prompt, type "DEL C:\CPSR\CPMV????.MEM" where ???? is the four character abbreviated contractor name.
3. The next time you use the ADD or MODIFY option, you will be asked to answer these questions a second time.
4. Records previously entered may have to be changed with MODIFY if Cost Accounting Standards or ACO consent issues apply.

HOW DO I BACK UP MY DATA?

1. From the Main CPSR menu, type "R<enter>" to enter the Report Writer Section.
2. Press "5" to COPY/BACKUP/DELETE Files.
3. Press "1" to COPY FROM C: TO A:
4. Put a formatted floppy disk in the A: drive.
5. Identify the files by four character abbreviation.
6. Select files to be copied from the on screen menu.
7. Remove floppy disk and store in a safe place.
8. Data can also be saved to the archive subdirectory on the hard disk by pressing "3" in step 3 above and following the on screen prompts.

IV. CPSR DATA FILES

In order for the computer to save and process information, it must know where to find it. Computer files are stored on disk in much the same way hard copy files are stored in a file cabinet. A hard copy file needs to be clearly labeled and logically stored so that it can be found quickly whenever required.

While the model names and accesses files automatically, some knowledge of how files are named is essential. Complete information on the names of CPSR files can be found in Appendix D. CPSR data files are named based on the first four letters of the company name and the dollar value category of Purchase Orders (P.O.s) intended for the file. CPSR spreadsheets are broken down into four dollar categories; under $10,000, $10,000-25,000, $25,000-100,000, and over $100,000. The model assumes that an analyst will work on one particular dollar category at a time and will keep these records in separate files.

All CPSR data files begin with the letters 'CP'. The next two characters in the file name indicate a dollar category; 'SM' for under $10K, 'MD' for $10-25K, 'LG' for $25-100K, and 'XL' for over $100K. The next four characters are the first four letters of the company name assigned by the analyst. All data files end with the extension '.DBF'.

Even though dollar value category is used to name files, ***a subcontract of any dollar value can be put in any file.*** The dollar value category is simply used to name files, but the particular name has no effect on the way the model works. For example, the model will allow a $15,000,000 P.O. in a file for small (under $10K) purchases. The naming procedure allows four files for each review so that up to four analysts on a team can have separate data files. Before printing reports, these files will be combined to calculate summaries.

Two specialized memory files are also created by the model. One of the files contains responses to the first two questions asked in the ADD option: is the contractor a small business and did the contractor pass his last CPSR. The second memory file contains contractor sales data entered in the PRINT STATISTICAL REPORTS option. Data is kept in these memory files so that it only has to be keyed in once and can be edited as required.

V. CPSR MODEL DATA INPUT SECTION

A. General Information

The DATA INPUT SECTION is used for a CPSR where all the required data will be input by the purchasing analyst. Section VIII of this guide gives details on how to conduct a review when part of the data is provided by the contractor from the CBDI model.

The model minimizes the amount of typing required to enter data. Many entries are menu driven. Most require pressing "Y" or "N" for YES or NO. At most, a short answer will be required such as a contract number. ***Pressing the <enter>***

key is required to advance to the next field after any specific data (e.g. contract number or Y/N response) is input but not required when selecting from a menu. <enter> is required to advance any time a highlighted box on the screen is filled with data. This will become obvious when using the model.

Many edit checks are made to ensure that the data is "clean" before it is stored in a file. Only capital letters are allowed regardless of whether the "CAPS LOCK" key or the "SHIFT" key is used. If a "Y" or "N" response is expected, no other keystroke will be accepted.

At the end of each data screen, a Confirmation Area will appear. It prompts the user to either type "Y" to advance to the next screen, "M" to enter notes, or "N" to change data on the current screen. New to version 3.0 is a B option to backup to a previous screen Typing "N" lets the user go back to the beginning of the current screen to make corrections. Pressing "Y" is required to advance to the next screen. Since this is a menu selection, the <enter> key should not be used.

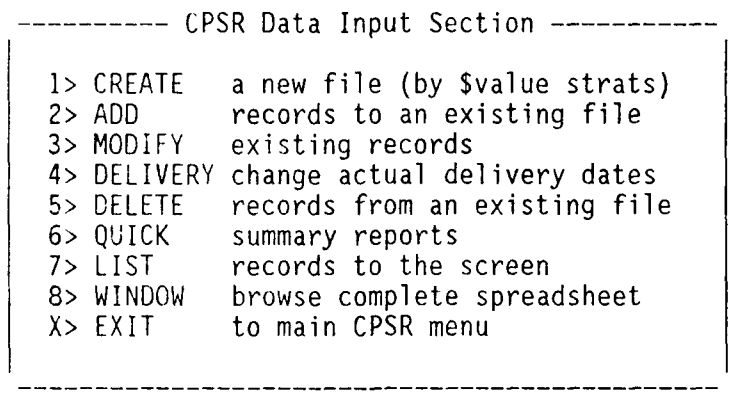
To start the model, turn the computer on and type "CPSR<enter>". The screen shown in Figure 1 will appear. Press "D<enter>" to start the Data Input Section.

Figure 1

```
------------------------------------------------------------
|                                                          |
|                        VERSION 3.0                       |
|          CONTRACTOR PURCHASING SYSTEMS REVIEW PROGRAM    |
|                        MAIN MENU                         |
|                                                          |
------------------------------------------------------------
|      TYPE D              FOR DATA INPUT SECTION          |
|                                                          |
|      TYPE R              FOR REPORT WRITER SECTION       |
|                                                          |
|      TYPE S              TO PRINT SPREADSHEETS           |
|                                                          |
|      TYPE K              FOR CBDI DATA INPUT SECTION     |
|                                                          |
|      TYPE Q              TO QUIT CPSR PROGRAM            |
------------------------------------------------------------
|     FOR INFORMATION ON THE USE OF THIS APPLICATION, CONTACT:
|     DCASR CHICAGO, OPERATIONS RESEARCH OFFICE, (312) 694-6627
|     Release Date 1 Nov 89                      (AV) 930-6627
------------------------------------------------------------
```

Figure 2 shows the main menu for the Data Input Section. Each of the menu options will be discussed below. The first step in each of the options will be to identify the desired file by the four character abbreviated company name and the dollar value category.

Figure 2



B. CREATE Option

CREATE is the starting point for a typical review. ***A data file must be created with this option before any information can be collected.*** Data files are created and named based on the dollar value category and company name. ***The model collects data the same way no matter what file name is chosen.*** The naming convention simply allows four separate data files for each review. If only two analysts are sent on a particular review and will be reviewing purchase orders in each dollar category, they may choose to only use two of the four available files (i.e. one uses the under $10K and the other uses $10-25K).

Data for all analysts will eventually be combined into one file to print statistical reports. ***The same four characters for abbreviated company name must be used by all analysts. Each analyst must use a separate dollar value category so that each has a unique file.*** DOS will not allow files of the exact same name to be located on the same disk. Using a unique file name is essential.

A file only needs to be created once at the beginning of the review. Once created, the file can be added to or modified at any time. The file is updated every time a record is added or changed. After records have been added to the file, they will be kept even when the machine is turned off.

C. ADD Records Option

This is the main option for the Data Input Section. The model contains a knowledge base of information about laws and regulations. This allows the user move quickly through the collection process. When the model makes a determination, justification will appear on the screen in the top right hand corner. A default answer will appear in the data field. If the user disagrees with any system generated default answer, the entry can be typed over with a different answer. Pressing "<enter>" accepts the default answer.

The first time data is entered into a file during a review, two questions are asked which effect the way data is collected. The model asks whether or not the prime contractor is a small business. This effects the applicability of Cost Accounting Standards. Next, the model asks whether or not the prime contractor passed his most recent CPSR. This effects the applicability of ACO consent issues. These questions are only asked the first time data is entered in a new file. The responses are stored in a special memory file.

Before accepting a new record, the model shows information on the last record entered. The answers to the two questions discussed above are also shown. If the file has no records, the screen will indicate that it is a new file.

From this point on, data entry will closely follow the approach in DFAR Supplement 1. More specific guidance on the actual data collected during a review is given in the supplement. Rather than attempting to incorporate DFARS into this guide, only items which are unique to the way the model collects data will be discussed.

The model allows lead time dates to be entered in two ways: input actual dates and let the computer determine lead times or simply omit the specific dates and key in the lead times directly. This is for contractors who keep lead time statistics only and information on specific dates is not available. Most often, the user will choose to input actual dates and let the computer determine corresponding lead times as shown in Figure 3.

Records can be linked together for cases where the contractor has "split awards" with an aggregate value over $100,000. Answering "Y" to the screen shown in Figure 4 indicates that the current P.O. will be linked with others to determine compliance with Public Laws. To link records, each must be coded "Y" on this screen and the same family number must be assigned to all records in the group Family numbers should be assigned sequentially starting with 1. As an example, two P.O.s for $60,000 issued on the same day to the same contractor can be linked by answering "Y" to this screen and assigning the number 1 to each separate record. Once assigned to a family, a record is treated just as if it were for over $100,000. Statistical reports will treat the family as one P.O. for determining compliance with Public Laws. Since this is likely to be rare, the model defaults to "N" in this field.

Figure 3

```
          * * * * Determination of Requirements Section * * * *
          * * * *   Requisition Dates/Data Input Area   * * * *

Requisition---
  Original Date                 10/10/86          Lead Time       = 384
  Date Received in Purchasing   10/11/86               (Req-Rec)
  Required Date                 10/30/87          Days Short      = 0
Purchase Order Date             10/15/86               (Prom-Req)
Promised Date                   10/30/87          Days Delinquent = 157
--Quantity              1000                           (Act-Prom)
Actual Delivery Date            04/04/88
*Note* All dates must be in the format MM/DD/YY

************** CONFIRMATION AREA **************
* PRESS Y to keep data & continue              *
*       N to reenter above data                *
*       B to back up through data              *
*       M to enter memo notes                  *
```

Figure 4

```
          * * * * Linking PO Information * * * *

          Does this P.O. appear to be
          part of a family-of-orders (Split Awards)
          with an aggregate value of
          $100,000 or more (Y/N)?            N

          NOTE---This option is only used to link together POs
          which appear to be split orders adding up to more
          than $100,000.  The reason for linking is to
          determine the applicability of Public Laws


************** CONFIRMATION AREA **************
* PRESS Y to keep data & continue              *
*       N to reenter above data                *
*       B to back up through the record        *
*       M to enter memo notes                  *
```

Catalog items are handled in a special way by the model. This ensures proper accounting in the statistical summaries. To count a P.O. as a catalog item, answer "C" to the question 'Is this P.O. Competitive? (Y/N/C)'. P.O.s coded as "C" will be reported separately in the statistical summaries. SF 1412 information will only be collected if this is coded as "C" or "N". Items coded "Y" for competitive will bypass most of the subsequent screens.

The model supports five different methods of price analysis as shown in Figure 5. Selecting 3 indicates that the P.O. is for a catalog or published price list item. This should be used together with "C" in the competition code (discussed above) to further identify catalog items. This information is used in the statistical summaries to stratify orders.

Figure 5

```
                                                ABC WIDGETS
                                                P.O. # P0001

        PRICE ANALYSIS
          Was it ACCOMPLISHED? (Y/N)        Y
          Was it DONE EFFECTIVELY? (Y/N)    Y

          Select Method of Price Analysis

           1> Prior Price History
           2> Use of Rough Yardsticks
           3> Catalog or Published Price Lists
           4> Independent In-House Cost Estimate
           5> Other

    ************** CONFIRMATION AREA **************
    * PRESS Y to keep data & continue              *
    *       N to reenter above data                *
    *       B to back up through the record        *
    *       M to enter memo notes                  *
```

Figure 6 shows the screen dealing with compliance to Public Law 87653. The model makes the determination and gives justification. The analyst can always override the response. "Y" in this field indicates that PL87653 is APPLICABLE and COMPLIED WITH. "N" in this field indicates that PL87653 is APPLICABLE and NOT COMPLIED WITH. ***This field should be left blank if PL87653 is NOT APPLICABLE.***

The model decides whether or not the overall documentation is adequate with the screen shown in Figure 7. Justification is given below the response. As always, the analyst can override by typing over the system generated response.

Figure 6

```
Compliance with Public Law 87653?    N
                                (Y/N/ )
  (If non-applicable leave blank)

Reasoning for noncompliance with Public Law 87653
 Price Certificate Not Adequate
 Defective Cost/Price Data Audit Clauses Not Included
```

Note: Possible reason for non-applicability would be Inter Division Xfer

Figure 7

```
                                                ABC WIDGETS
                                                P.O. # P0001

Is the DOCUMENTATION ADEQUATE? (Y/N)    N

In making your decision, consider the following:

Principal Reason Acceptable?   Y     Advance Notification Adequate?  Y
Price Anal. Done Effectively?  Y     Written Just Adequate?          Y
Cost/Pricing SF1411 Adequate?  Y     Prior Consent Obtained?
Cost/Pricing SF1412 Verified?        Price Certificate Adequate?     N
Defective Cost Price Cls Inc?  N     Non-Segregated Facilities?      Y
Cost Analysis Effective?       Y     Clean Air & Water Certificate?  Y
Negotiations Effective?        Y     EEO Pre-Award Clearance?        Y
Cost Accounting Stds Obtained? Y
NOTE:  Blanks imply not applicable
                                                ** Memo/Notepad Area **
                                                *                     *
************** CONFIRMATION AREA ************** *                     *
* PRESS Y to keep data & continue             * *                     *
*       N to reenter above data               * *                     *
*       B to back up through the record       * *                     *
*       M to enter memo notes                 * *                     *
```

At the end of the data entry for each record, the screen shown in Figure 8 asks the user to type "N" to exit the ADD option or "Y" to input more records. At this point the model saves the completed record in the data file. If power is lost during the ADD option (which is extremely unlikely with the battery backup) or the system is somehow interrupted, the only data lost will be the current record. Completed records stored in the data file will not be lost due to power problems.

Figure 8

ABC WIDGETS
P.O. # P0001

This record is complete and has been stored in the database.

Press Y to input more records.
Press N to return to main menu.

At the bottom of most data entry screens a Confirmation Area appears. The user has the opportunity to either advance to the next screen by pressing "Y", change data on the current screen by pressing "N", back up to an earlier data entry screen by pressing "B", or pressing "M" to enter the memo notes. The memo note pad is a convenient way to keep narrative comments on the P.O. When "M" is selected, a box appears in the lower right hand corner of the screen. Any comments entered are stored with the record and will be printed out on the spreadsheet. "<enter>" must be pressed at the end of each line in the note pad to advance. The back up option lets the user return to one of four places in the ADD option; the very beginning, the dates screen, the header information screen, or the SF1411/1412 screen.

D. MODIFY Option

The MODIFY option is nearly identical to the ADD option. MODIFY is used to correct information already in the system. The user must identify the record to be changed and edit the associated data. The MODIFY screens are identical to the ADD screens except they contain previous responses.

Figure 9 shows the first screen for the MODIFY option which allows the user to select the particular record to be edited. The first or last record in a file or a specific record identified by the P.O. number and date can be selected. A record may also be chosen by its place in the file. To find the appropriate record number or P.O. number, the LIST option can be used from the Data Input Section main menu to print this information on the screen. When already in the MODIFY option, NEXT can be used to advance to the next record in the file.

In MODIFY, <enter> can be used to advance quickly through the data. <enter> confirms previous responses. <enter> not only moves through the data but also through the Confirmation Area at the bottom of each screen. <enter> is used to advance to the field to be edited leaving other entries unchanged.

Figure 9

MODIFY - Record Selection Area

Choose Record To Be Modified

```
1> FIRST     Record in File
2> NEXT      Record in File
3> LAST      Record in File
4> SPECIFIC  Record in File by P.O. Number/Date
5> SPECIFIC  Record in File by Record Number
X> EXIT      to Main CPSR Data Input Menu

Select desired menu option
```

E. DELIVERY Option

Actual Delivery Date information is kept in separate files by some contractors. The DELIVERY option expedites entering Actual Delivery Dates. Any of the four fields displayed for each record (P.O. Number, P.O. Date, Actual Delivery Date, and Part Number) can be changed or added. Records are processed in the order that they were initially entered. Since there is only one screen per record, data for the entire file can be entered quickly.

F. DELETE Option

The DELETE option erases records from the database. ***Records which have been deleted cannot be retrieved so this option should be used with discretion.*** Rather than using DELETE, a record can often be edited with MODIFY into an acceptable form. A new record can also be typed over an old one using MODIFY rather than using DELETE.

To use DELETE, the record must be identified the P.O. number and date. If uncertain about the exact values for these fields, the LIST option can be used to verify. DELETE will erase the first record in the file which has an exact match on P.O. number and date. ***If for some reason there is more than one record in the file with the exact same P.O. number and date, only the first occurrence will be erased.*** To DELETE later occurrences of records having a duplicate P.O. number and date, the P.O. number for the record should be changed with the MODIFY option or with the DELIVERY option to a unique value (e.g. "ZZZ"). This will ensure that the proper record is deleted.

G. QUICK SUMMARY Option

QUICK SUMMARY provides several reports to help identify trends in the data and spot emerging problem areas. These reports summarize the frequency and associated dollar value of each of the areas reviewed. They also provide specialized information on areas like competition. Reports can be generated for individual files or for all data if a combined data file has been created with the MERGE option.

These reports, as well as anything else that appears on the screen while using the model, can be printed by pressing the <SHIFT> and <PRTSC> keys at the same time. The printer must be properly connected and on-line. The <SHIFT> <PRTSC> command is not unique to the CPSR model but can be used in almost any program to print copy of information displayed on the screen.

H. LIST Option

This option lists the P.O. Number, Vendor Name, Part Number, P.O. Date, Item Description, and Dollar Value of each record in a data file. The MODIFY and DELETE option use P.O. Number and Date to access specific records. Since the model requires exact matches for each of these fields, the LIST option can be used to verify the their precise values. <SHIFT> <PRTSC> will print a copy of the information on the screen.

I. WINDOW Option

WINDOW lets the analyst browse the spreadsheet on the screen. The entire spreadsheet is too large to display all the data on the screen at one time. The WINDOW option lets the user page through a "window " at a time by pressing "U" to move up, "D" to move down, "L" to move left, and "R" to move right. Fifteen records can be viewed on the screen at any one time. By moving right and left, the complete spreadsheet can be viewed through 14 separate windows.

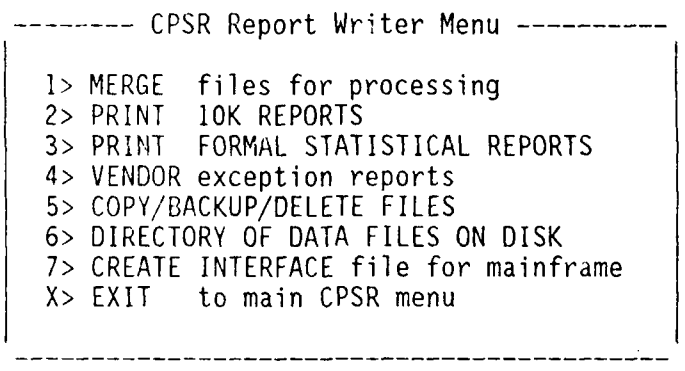
VI. CPSR MODEL REPORT WRITER SECTION

A. General Information

The second part of the CPSR model is the Report Writer Section. The overall format is very similar to the Data Input Section but there are some key differences. The Report Writer Section uses all data from a review. ***All the data files must be combined into one master file before any reports can be printed.*** Since data will usually be on at least two separate computers, files must first be transferred to one machine before they can be combined. The CPSR model performs this administrative task.

Another feature is the ability to back up CPSR data files. Three back up methods are available to safeguard data against loss or damage. This protection is especially important with laptop computers since they are frequently moved and are subjected to a much rougher environment than a desk top PC. Menu options for the Report Writer Section are shown in Figure 10.

Figure 10



B. MERGE Option

Options in the Report Writer Section require that data for a review be combined into one file. MERGE must be used to combine these files. MERGE locates all files for a particular review, by the four character abbreviated contractor name assigned. It then combines them into a single master file from which all reports are made. All files must be on the same computer in the same subdirectory.

Transferring files between computers is a simple process but can present some logistical problems. There are several ways to transfer files outside of the CPSR model which work acceptably but require some specialized knowledge. The COPY/BACKUP/DELETE FILES option should be used to transfer files between computers to minimize the risk of losing data.

When files are copied from one disk to another or from one subdirectory to another, DOS will write the new file over the top of an old file with the same name. The old file with the same name will be lost.

Before using MERGE, the COPY/BACKUP/DELETE option should be used to make a backup copy of data files. During a review, the same computer should always be used to merge files and print reports. This minimizes the possibility of mixing up files or writing over the top of new files with old information.

MERGE looks for the four possible files for a review and combines them into a single file. All of the files that exist for a particular review will be combined. ***Any time data is changed in a file during the review, MERGE must be used to create a new combined file with the updated information before printing any reports.*** If an old combined file already exists, it will be overwritten with a newer version.

C. PRINT 10K REPORTS Option

PRINT 10K REPORTS is identical to QUICK SUMMARY except that it only considers data on purchases over $10,000. As with other menu options in the Report Writer Section, data from the merged file is used as the source for the reports. <SHIFT><PRTSC> can be used to print copies of reports.

D. PRINT FORMAL STATISTICAL REPORTS Option

The statistical summaries required by DFARS are printed with this option. Figure 11 shows the menu for this option listing the reports by name. A combined file must first be created with MERGE and the printer must be ready.

Before printing reports, sales data for the contractor must be entered with the first menu option. This data is usually provided to the review team by the contractor on local forms similar to those used shown in Appendix B. Information provided includes the name and address of the contractor and total sales/purchase data broken down into varying categories. This information is essential because many of the statistical summaries require comparisons of review data with the entire universe of purchasing data for the contractor. This information must be entered before any reports can be generated.

The sales data is stored in a memory file. The data will automatically be retrieved each time reports are generated. It can be edited at any time by selecting the first menu option. The CBDI model allows contractors to input this information and transfer it on a floppy disk. Reports listed in Figure 11 can be printed individually or all at once. The time required varies with the printer speed and the number of records in the data files but should take no more than a few minutes.

The reports are sent to the printer and also to text (ASCII) files on the hard disk. These text files (named cpstats1.rpt, cpstats2.rpt ... cpstats6.rpt) can be edited by most commercially available word processing software packages (e.g. Enable). Final reports can then be locally customized.

Figure 11

```
------------ C P S R  Statistics Writer ------------
|                                                    |
|    1> Enter Company Sales Data                     |
|    2> Print Section A     - Conducting the Review  |
|    3>       Section B     - Co. History & Purch Org.|
|    4>       Section D     - Subcontract Clauses    |
|    5>       Section F     - Dev. of Purchase Reqs  |
|    6>       Section G     - Selecting the Source   |
|    7>       Section H     - Pricing                |
|    8>       Summary Statistical Report             |
|    9> Print All Reports                            |
|    X> Exit Statistics Writer                       |
|                                                    |
------------------------------------------------------

Select desired option
```

E. VENDOR EXCEPTION REPORTS Option

Exception reports can be generated which point out deficiencies in the records reviewed. These reports can be given to the contractor to find missing documentation before completion of the review. Each report lists the problem area and the associated Contract Number, P.O. Number, Vendor, and Dollar Value. Reports can be listed to the screen or directly to the printer.

F. COPY/BACKUP/DELETE FILES Option

Backing up data files is essential. Three methods are built into the model to simplify this task. Every time ADD, MODIFY, or DELIVERY is used, a duplicate file named CP??BKUP.DBF is created where ?? is the dollar value category of the file. Only data from the current review will be in these back up files. If normal data files are damaged or erased, the backup file can be renamed and used in its place. ***When a new review is started, these automatic backup files will be replaced with data from the current review.***

The second way to back up files is to use COPY/BACKUP/DELETE FILES to copy files to a floppy disk. The floppy disks used must be formatted using the DOS FORMAT command. Files should be backed up to floppy disks on a daily basis during a review. In the event the original file and the automatic backup are lost, a relatively recent copy of the file is then available. Copying to floppy disks also allows the transfer of files to another PC for combining with MERGE.

A third method for backing up data files is also available with the COPY/BACKUP/DELETE FILES option. A separate archival subdirectory is built into the system to hold files from past reviews. This option also allows the user to delete files for a review from the main subdirectory to conserve space on the hard disk. Archiving previous review files and deleting them from the main subdirectory will keep the main subdirectory more manageable in size.

Erasing files from the main subdirectory will be necessary from time to time to keep the number of files down to a manageable size. Before erasing, all files from a review should be copied to a floppy disk for long term storage. Files should also be archived as discussed above.

G. DIRECTORY Option

This option lists all of the CPSR data files on the hard or floppy disk. Only CPSR database files will be listed.

H. CREATE INTERFACE Option

Summary information for each review will be passed to headquarters DLA. This creates a file which contains the required summary information. The model creates the file and allows the user to edit the data fields before sending the information to DLA. Certain data elements need to be manually entered before transmitting the file; the number of pages in the final review report

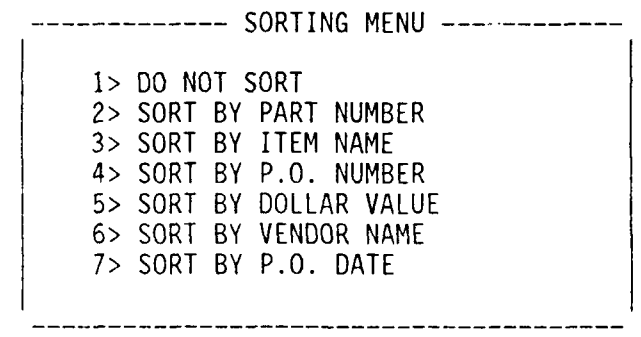
and whether the system is approved or withheld. These fields are highlighted when creating or editing an interface file. Documentation on how to transmit this summary file to the DLA-DASC mainframe computer will be provided by DASC.

VII. PRINT SPREADSHEETS

A combined file must first be created using MERGE before spreadsheets can be printed. The SIDEWAYS software package must also be installed. The printer must be properly connected and the paper aligned.

PRINT SPREADSHEETS prints records in the order entered or sorted by Part Number, Item Name, P.O. Number, Dollar Value, Vendor Name, or P.O. Date as shown in Figure 12. Spreadsheets for each dollar value category can be printed individually or all at the same time. The time required to print will vary depending on the speed of the printer and the number of records. Since the spreadsheets are printed sideways and are quite lengthy, the printing process is time consuming (5-15 minutes per spreadsheet). Printing should be delayed for the end of the day, over lunch, or whenever the laptop and printer are free for sufficient time.

Figure 12



VIII. CPSR DATA INPUT SECTION - CBDI IMPORT

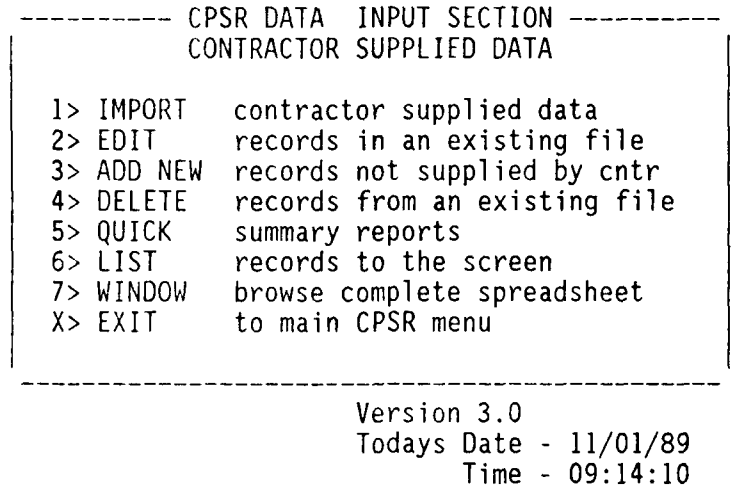
A. General Information

This special DATA INPUT SECTION is used where data is provided by the contractor from the CBDI model. CBDI allows the contractor to input 22 fields of baseline information about each purchase order. This part of the model imports the data into a format which is directly usable. It provides an advanced starting point in a review. It also allows analysts to spend less time collecting data and more time focusing on compliance.

This section is nearly identical to the DATA INPUT SECTION described in Part V. Figure 13 shows the menu for this section. The only differences are in the first three menu options which deal with importing, editing, and adding to

the contractor supplied data. All other options are identical. The Report Writer Section and Print Spreadsheets Section are still used in the same way.

Figure 13



B. Using CBDI Data in a Review

The contractor will provide two files from the CBDI model. The files may be on a floppy diskette or received over a modem. The first file will be named CBDI????.TXT where ???? is the four letter abbreviated company name. The second file is the sales data file. These files should be copied into the C:\CPSR\ subdirectory on the hard disk.

The contractor may provide the files on 5.25 inch floppy diskettes and not the 3.5 inch diskettes used by the laptop. Copying the files to the laptop may require an extra step. Data can be transferred by hooking the laptop to a PC with a 5.25 inch floppy disk drive and using the PCXFER software program. Some offices may have external 5.25 inch floppy disk drives that can be connected directly to a laptop and used just like the 3.5 inch disk drive. Some desk top PCs have both types of disk drives and can copy the files directly from 5.25 inch to 3.5 inch disks. Whatever the case, the two files need to be transferred to the hard disk on the laptop.

Guidance to contractors on what information to send is at the discretion of the Purchasing Analyst. Depending on the number of orders in the universe, analysts may request data on all purchase orders or on some randomly selected subset (e.g. every order ending in 5).

C. IMPORT Option

After the contractor supplied files are copied to the hard disk, IMPORT puts the information into the proper CPSR file format. It separates the file into the four usual CPSR files based on dollar value. These files can then be edited to add information about compliance.

D. EDIT Option

EDIT is the main data entry option. A record is selected from the menu shown in Figure 14. The next screen, shown in Figure 15, is a summary of the information provided by the contractor for the order. Four menu choices are available at this point. The remainder of the record can be completed by selecting "E" to edit. Contractor provided data can be altered by pressing "C" for change. Pressing "D" deletes the current record from the database. Finally, pressing "X" exits the EDIT option.

E. ADD NEW Option

The ADD NEW option is used to add a completely new record to the database. Screens are identical to the ADD option in the normal Data Input Section. This can be used to randomly select a few purchase orders, while in the plant, for complete review.

Figure 14

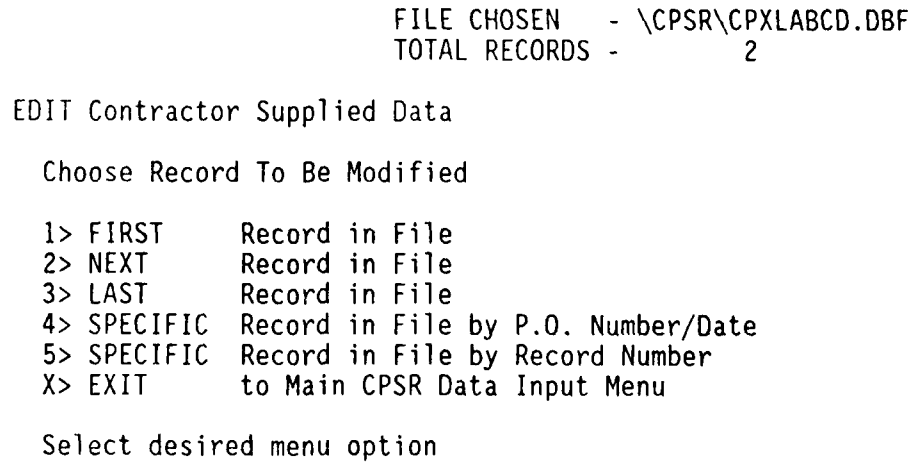


Figure 15

```
File Name is - \CPSR\CPXLABCD.DBF       Record Number is -       1

CONTRACT NR - DLA500871234567           CONTRACT TYPE - FFP
DPAS CODE   - DO

KEY DATES:
 Req Original Date    - 10/10/87         Purchase Order Date  - 10/30/87
 Req Received Date    - 10/15/87         Promised Date        - 10/30/88
 Req Required Date    - 10/30/87         Actual Delivery Date - 10/30/88

P.O. NUMBER     - 87-00130              QUANTITY         - 1000
VENDOR NAME     - LARGER CORPORATION
VENDOR SMALL BUS? N                     VENDOR ZIP CODE - 60666

ITEM DESC       - FLANGE COUPLING       PART NUMBER      - CPL-12345
UNIT PRICE      - 2000.00               DISCOUNT TERMS   - NET 30
P.O. VALUE      - 2000000               P.O. TYPE        - FFP
NR CHANGES      - 0                     REVISED VALUE    - 2000000

Press E to EDIT rest of record   Press D to DELETE this record
Press C to Change above data     Press X to EXIT to main menu
```

IX. NOTES FOR ADVANCED USERS

A. Using DBASE III With CPSR Files. The CPSR model is written in DBASE III and all data files are directly compatible with DBASE III. Changes to a database file can be made and specialized reports can be generated directly from the DBASE III dot prompt. The structure of the data files is shown in Appendix C. The statistical reports generated by the model require that the data be in a standardized form so great care must be taken to ensure that changes made at the dot prompt conform to the model.

B. Specialized DOS Commands. Advanced users will want to use the DOS PATH command to link to the "C:\CPSR\" subdirectory. The command "PATH C:\CPSR" can be added to the AUTOEXEC.BAT file to accomplish this. The Q.BAT is used to return the computer to its main menu. This file can be edited to conform with your particular PC.

C. System Files. The DOS file "CONFIG.SYS" in the root directory should contain the following three commands:

```
Files=22
Buffers=24
Device=ANSI.SYS
```

The CPSR model requires a great deal of the computers internal memory. Other memory resident programs should not be used when running the model. DOS management shells, on-line calculators/notepads, and other utility programs should not be used when running the model.

Appendix - A

S I D E W A Y S version 3.01 S/N-0000000-00
IBM Graphics Printer

Printer Port	LPT1:	
Vertical form size (inches):	11.00	
Horizontal form size (inches:	8.00	
Character font:	Tiny	4 x 12 dot matrix
Density:	Single	
Character spacing (dots):	2	12.00 chartacters per inch
Line Spacing (dots):	3	8.0 lines per inch
Left margin (inches):	0.00	
Top Margin (inches):	0.00	
Bottom margin (inches):	0.00	63 lines per page
Starting page:	1	
Glue lines:	0	
Directory:	C:\CPSR	
Enter name of print file:		

F1 for Help F10 to exit

Recommended Default Configuration for SIDEWAYS version 3.01

IN-DEPTH CONTRACTOR PROCUREMENT SYSTEM REVIEW	PAGE 1 OF 4 PAGES

1. STATISTICAL DATA

A. PERSONNEL

(a)	PRIOR YEAR (b) ( )	CURRENT YEAR (c) ( )
(1) TOTAL DIVISIONAL		
(2) MATERIAL DEPARTMENT		
(3) PURCHASING DEPARTMENT		

B. SALES DATA ($000)

SOURCE (a)	PRIOR YEAR ( ) (b) AMOUNT	PERCENT	CURRENT YEAR ( ) (c) AMOUNT	PERCENT	NEXT YEAR ESTIMATE FOR ( ) (d) AMOUNT	PERCENT
(1) ARMY	$	%	$	%	$	%
(2) NAVY	$	%	$	%	$	%
(3) AIR FORCE	$	%	$	%	$	%
(4) NASA	$	%	$	%	$	%
(5) OTHER	$	%	$	%	$	%
(6) TOTAL GOVERNMENT	$	%	$	%	$	%
(7) COMMERCIAL	$	%	$	%	$	%
(8) TOTAL SALES	$	%	$	%	$	%

C. GOVERNMENT SALES BY CONTRACT TYPE AND METHOD OF PLACEMENT ($000)

	FIRM-FIXED PRICE (FFP) (a)	PRIOR YEAR ( ) (b) AMOUNT	PERCENT	CURRENT YEAR ( ) (c) AMOUNT	PERCENT	NEXT YEAR ESTIMATE FOR ( ) (d) AMOUNT	PERCENT
(1) GOVT PRIME CONTRACTS	1. IFB (FFP)	$	%	$	%	$	%
	2. NEGOTIATED (FFP)	$	%	$	%	$	%
	3. OTHER THAN FFP	$	%	$	%	$	%
	4. SUBTOTAL, PRIME CONTRACTS (A)	$	%	$	%	$	%
(2) GOVT SUBCONTRACTS	1. IFB (FFP)	$	%	$	%	$	%
	2. NEGOTIATED (FFP)	$	%	$	%	$	%
	3. OTHER THAN FFP	$	%	$	%	$	%
	4. SUBTOTAL, SUBCONTRACTS (B)	$	%	$	%	$	%
(3)	TOTAL GOVT SALES (A & B)	$	%	$	%	$	%

D. PURCHASE DATA

(COMMERICAL & GOVERNMENT) (a)	PRIOR YEAR ( ) (b)	CURRENT YEAR ( ) (c)	NEXT YEAR ESTIMATE FOR ( ) (d)
(1) NUMBER OF PURCHASE ORDERS			
(2) TOTAL VALUE ($000)	$	$	
(3) PERCENT OF SALES	%	%	

IN-DEPTH CONTRACTOR PROCUREMENT SYSTEM REVIEW	PAGE 2 OF 4 PAGES

2. UNIVERSE INFORMATION

(1) REVIEW PERIOD

DOLLAR VALUE (a)	NO OF PURCHASE ORDERS AWARDED DURING REVIEW PERIOD (b)	DOLLAR AMOUNT (c)
(2) $0 - $10,000		$
(3) $10,000 - $25,000		$
(4) $25,000 - $100,000		$
(5) OVER $100,000		$
(6) TOTAL		$

3. PROCUREMENT PERSONNEL INFORMATION

NAME (a)	AGE (b)	POSITION (c)	EXPERIENCE (d)	EDUCATION (e)

4. PRINCIPAL GOVERNMENT CONTRACTS AND SUBCONTRACTS HELD

CONTRACT/SUBCONTRACT NUMBER (a)	TYPE (b)	DESCRIPTION (c)	VALUE ($000) (d) FACE	ULO

5. REPORTS AND CONTROLS. LIST ALL REPORTS USED BY PURCHASING DEPARTMENT. IN COLUMN (d), CHECK APPROPRIATE BLOCK(S).

REPORT SUBJECT (a)	PURPOSE (b)	FREQUENCY (c)	PURCHASING (d)		
			IN	OUT	WITHIN

IN-DEPTH CONTRACTOR PROCUREMENT SYSTEM REVIEW	PAGE 4 OF 4 PAGES

6. TRAINING FOR PURCHASING PERSONNEL: INCLUDE ALL TRAINING: DEPARTMENT; INTERCOMPANY; CORPORATE; ETC. AND INDICATE IF FORMAL OR INFORMAL

7. ASSESS THE COST EFFECTIVENESS OF THE PURCHASING DEPARTMENT

ALL DOLLARS ($000) (a)	FISCAL YEAR PRIOR YEAR (b)	FISCAL YEAR CURRENT YEAR (c)	ESTIMATE FOR NEXT YEAR (d)
(1) PURCHASING DEPARTMENT OPERATING COST	$	$	$
(2) OPERATING COSTS PER PURCHASE ORDER	$	$	$
(3) OPERATING COST OF PURCHASING AS % OF PURCHASE ORDER DOLLARS	%	%	%
(4) OPERATING COST AS % OF CONTRACTOR SALES	%	%	%

8. SAVINGS/COST AVOIDANCE (MOST RECENT 12-MONTH PERIOD	$
A. SAVINGS THROUGH CONVERSION FROM NONCOMPETITIVE TO COMPETITIVE	$
B. SAVINGS THROUGH UTILIZATION OF PRICE/COST ANALYSIS AND NEGOTIATION	$
C. OTHER (PLEASE GIVE DETAILS)	
	$
D. TOTAL SAVINGS/COST AVOIDANCES	$

Appendix-C

Structure for Database Files

	Field Name	Type	Width	Dec	Description
1	CT_NUM	Char	20		Contract Number
2	CT_TYPE	Char	6		Contract Type
3	DPAS	Char	2		Defense Priority Code
4	RQORGDT	Date	8		Requisition Original Date
5	RQRECDT	Date	8		Req Received in Purchasing Date
6	RQREQDT	Date	8		Req Required Date
7	PO_DATE	Date	8		Purchase Order Date
8	LEADTIME	Nume	5		Leadtime
9	PROMDATE	Date	8		Date Promised
10	QTY	Nume	8		Quantity Promised
11	DAYSSHRT	Nume	5		Number of Days Short
12	ACTDELDT	Date	8		Actual Delivery Date
13	DAYSDEL	Nume	5		Number of Days Delinquent
14	FAMCODE	Char	1		Family-of-orders Code (Y/N)
15	FAMNUM	Nume	3		Family-of-orders linking number
16	PO_NUM	Char	15		Purchase Order Number
17	VENDNAME	Char	25		Vendor Name
18	ZIPCODE	Char	5		Vendor Zip Code
19	SUBCAGE	Char	6		Subcontractor CAGE (not used)
20	SUBSMALL	Char	1		Small Business Code
21	ITEMDESC	Char	20		Item Description
22	PARTNUM	Char	15		Part Number
23	UPRICE	Nume	12	2	Unit Price
24	PO_TYPE	Char	6		Purchase Order Type
25	SPECTYPE	Char	15		Special Type Purchase
26	PO_VALUE	Nume	9		Purchase Order Value
27	DISCTERM	Char	15		Discount Terms
28	NUMCHANG	Nume	3		Number of Changes Issued
29	REVPOVAL	Nume	9		Revised Purchase Order Value
30	NETCHANG	Nume	11		Net Change in Value
31	BIDSREQ	Nume	3		Number of Bids Requested
32	BIDSREC	Nume	3		Number of Bids Received
33	BIDSRESP	Nume	3		Number of Bids Responsive
34	COMPCODE	Char	1		Competition Code (Y/N)
35	COMPINEF	Char	10		Reason Competition Not Effective
36	LOWBID	Char	1		Awarded to Low Bid (Y/N)
37	NOLOWBID	Char	15		Reason Not Awarded to Low Bid
38	SOLESING	Char	2		Single/Sole Source Code
39	PREASOFF	Char	6		Principal Reason Offered
40	PREASACC	Char	1		Principal Reason Acceptable
41	PRANAPP	Char	1		Price Analysis Applicable
42	PRANACC	Char	1		Accomplished
43	PRANEFF	Char	1		Effective
44	PRANMETH	Char	10		Method Used

45	CARVASK	Char	1	Contractor Audit Rate Verification Ask
46	CARVTIM	Char	1	Timely Received
47	CAOTASK	Char	1	Contractor Audit Other Asked
48	CAOTTIM	Char	1	Timely Received
49	CATAASK	Char	1	Contractor Audit Technical Anal Asked
50	CATATIM	Char	1	Timely Received
51	GARVASK	Char	1	Govt Audit Rate Verification Asked
52	GARVTIM	Char	1	Timely Received
53	GAOTASK	Char	1	Govt Audit Other Asked
54	GAOTTIM	Char	1	Timely Received
55	GATAASK	Char	1	Govt Audit Technical Analysis Asked
56	GATATIM	Char	1	Timely Received
57	SF1411AP	Char	1	SF 1411 Applicable
58	SF1411OB	Char	1	Obtained
59	SF1411AD	Char	1	Adequate
60	SF1412AP	Char	1	SF 1412 Applicable
61	SF1412OB	Char	1	Obtained
62	SF1412VR	Char	1	Verified by ACO
63	PCERTAP	Char	1	Price Certificate Applicable
64	PCERTOB	Char	1	Obtained
65	PCERTAD	Char	1	Adequate
66	PCERTDT	Date	8	Date
67	DCPDACAP	Char	1	Def Cost Price Data Audit Cl Applicable
68	DCPDACOB	Char	1	Obtained
69	DCPDACIN	Char	1	Included
70	COANAP	Char	1	Cost Analysis Applicable
71	COANAC	Char	1	Accomplished
72	COANEF	Char	1	Effective
73	NEGAPP	Char	1	Negotiations Applicable
74	NEGCON	Char	1	Conducted
75	NEGEFF	Char	1	Effective
76	PL87653	Char	2	Public Law 87653 Complied With
77	CASAP	Char	1	Cost Accounting Stds Applicable
78	CASOB	Char	1	Obtained
79	CASDATE	Date	8	Date
80	ADVAP	Char	1	Advance Notification Applicable
81	ADVOB	Char	1	Obtained
82	ADVDATE	Date	8	Date
83	ADVAD	Char	1	Adequate
84	ADVREAS	Char	1	Reason Cd
85	WJAP	Char	1	Written Justification Applicable
86	WJOB	Char	1	Obtained
87	WJDATE	Date	8	Date
88	WJAD	Char	1	Adequate
89	WJREAS	Char	1	Reason Cd
90	PCAP	Char	1	Prior Consent Applicable
91	PCOB	Char	1	Obtained
92	PCDATE	Date	8	Date
93	PCAD	Char	1	Adequate
94	PCREAS	Char	1	Reason Cd

95	NSEGFAC	Char	2	Non-Segregated Facilities Compliance
96	CLEANAIR	Char	2	Clean Air and Water Act Compliance
97	EEOPAC	Char	2	EEO Pre Award Clearance Obtained
98	DOCADQ	Char	2	Overall Documentation Adequate
99	INTVIEW	Char	2	Interviewed Buyer, seller, or NA
100	PMACOMM	Char	1	Are PMA comments attached
101	PMAINIT	Char	3	PMA Initials
102	MEM1	Char	30	Notepad Storage Area
103	MEM2	Char	30	
104	MEM3	Char	30	
105	MEM4	Char	30	
106	MEM5	Char	30	
107	MEM6	Char	30	
108	RANDD	Char	1	Research And Development
109	SPECEQ	Char	1	Special Test Equipment
110	RMCSI	Char	1	Commercially Stocked Item
111	FACIL	Char	1	Facilities
** Total **			613	

CPSR FILE NAMING CONVENTION

1. Database Files

While the model names and accesses files automatically, some knowledge of what and how files are named is essential. CPSR data files are named based on the first four letters of the company name and the dollar value category of Purchase Orders (P.O.s) intended to be put in the file. Since manual CPSR spreadsheets are currently broken down into four dollar categories (under $10,000, $10,000-25,000, $25,000-100,000, and over $100,000), the model assumes that an analyst will work on one particular dollar category at a time and will keep these records in separate files.

All data files are stored in the "C:\CPSR\" subdirectory and begin with the letters "CP". The next two characters in the file name indicate a dollar category ("SM" for under $10K, "MD" for $10-25K, "LG" for $25-100K, and "XL" for over $100K). The next four characters are the first four letters of the company name as assigned by the analyst. All files contain the extension ".DBF" which means they are database files.

As an example, the model will assign the name:

C:\CPSR\CPXLABCD.DBF

to a data file for:

- subcontracts over $100,000
- a company whose name begins with the letters ABCD
- located in the "C:\CPSR\" subdirectory on the hard disk

Even though dollar value category is used to name files, ***a subcontract of any dollar value can be put in any file.*** The dollar value category is simply used as a convenient way to name files, but the particular name has no effect on the way the model collects data. For example, the model will allow the user to put data on a $15,000,000 P.O. in a file for small (under $10K) purchases. This naming procedure allows four distinct files for every review so that each analyst can have a separate data file. Before printing reports, these files are combined to calculate summaries.

2. Memory Files

Two specialized memory files are also created by the model. The first of these files is named "C:\CPSR\CPMF*????*.MEM" where "*????*" is the four character abbreviated contractor name. This file contains responses to the first two questions asked in the ADD option: is the contractor a small business and did the contractor pass his last CPSR. If the wrong information is entered in this file, the file should be deleted using the DOS command "DEL C:\CPSR\CPMF????.MEM". The user will be asked for this information the next time the ADD or MODIFY option is used.

The second memory file is named "C:\CPSR\CPMV????.MEM" and it contains contractor sales data entered in the PRINT STATISTICAL REPORTS option. Data is kept in this memory file so that it only has to be keyed in once and can be edited as required.

3. Automatic System Backup Files

The model automatically makes a backup of database files every time the user leaves the ADD, MODIFY, or DELIVERY option. The backups contains information from the most recent review only. Files are named CPBKUP??.DBF where ?? indicate the dollar category ("SM" for under $10K, "MD" for $10-25K, "LG" for $25-100K, and "XL" for over $100K). The four letter contractor name is not used because these files are only for the current review.

If a primary CPSR data file is inadvertently lost, damaged, or written over, these automatic backup files can be renamed and used in their place. The DOS command "COPY" can be used to recreate the lost file by copying the backup file to a file with the same name as the damaged file. The following is a sample of a command issued at the DOS prompt to copy a backup file to a primary:

```
COPY C:\CPSR\CPBKUPXL.DBF C:\CPSR\CPXLABCD.DBF
```

This command would copy the most recent backup file for the over $100K purchase orders to the over $100K file for a company with the abbreviated name ABCD.

4. Statistical Report Files

Every time formal statistical reports are printed, an exact copy is written on the hard disk. These files can be accessed using any word processing package that will accept a standard ASCII file. This will allow the user to customize reports locally. These files are named CPSTATS?.RPT where ? is a number from 1 to 6 which corresponds to the report number.

5. List of CPSR Program Files

The following is a list of CPSR program files and their use:

File Name	Use
CPSRDATA.EXE	Program for Data Input Section
CPSRREPT.EXE	Program for Report Writer Section
CPSRSPRD.EXE	Program for Printing Spreadsheets
CPSRMAIN.TXT	Text file with main CPSR menu
CPSR.BAT	Batch program to start the model
D.BAT	Batch program to start the Data Input Section
R.BAT	Batch program to start the Report Writer Section
S.BAT	Batch Program to start the Print Spreadsheet Section
Q.BAT	Batch program to quit the model/return to root dir

File Name	Use	
TEMPCPSR.DBF	Structure for all CPSR database files	
TESTMRG1.DBF	Temp file used in printing spreadsheets	
TESTMRG2.DBF	Temp file used in printing spreadsheets	
TESTMRG3.DBF	Temp file used in printing spreadsheets	
TESTMRG4.DBF	Temp file used in printing spreadsheets	
TESTMRG5.DBF	Temp file used in printing spreadsheets	
ALLFILE.DBF	Temp file used in printing spreadsheets	
CPSR1.FRM	Form file used in printing spreadsheets	
CPSR2.FRM	Form file used in printing spreadsheets	
CPSR3.FRM	Form file used in printing spreadsheets	
CPSR4.FRM	Form file used in printing spreadsheets	
CPSR5.FRM	Form file used in printing spreadsheets	
CPBKUPSM.DBF	System backup file for under $10K data file	Note 1
CPBKUPMD.DBF	System backup file for $10-25K data file	Note 1
CPBKUPLG.DBF	System backup file for $25-100K data file	Note 1
CPBKUPXL.DBF	System backup file for Over $100K data file	Note 1
CPSTATS1.RPT	ASCII file containing formal statistical report 1	Note 1
CPSTATS2.RPT	ASCII file containing formal statistical report 2	Note 1
CPSTATS3.RPT	ASCII file containing formal statistical report 3	Note 1
CPSTATS4.RPT	ASCII file containing formal statistical report 4	Note 1
CPSTATS5.RPT	ASCII file containing formal statistical report 5	Note 1
CPSTATS6.RPT	ASCII file containing formal statistical report 6	Note 1
CONTINTR.EXE	Program for CBDI Data Input Section	

Note 1 - Files represent most recent data only. CPBKUP??.DBF files are overwritten at the end of each ADD, MODIFY, or DELIVERY session. CPSTATS?.RPT files are overwritten each time new reports are generated.

CPSR MODEL SYSTEM REQUIREMENTS

The model runs on a laptop computer (ZENITH 184 or compatible) with a minimum of 640 Kilobytes of memory, a hard disk (20 MB is recommended), a 3.5 inch floppy disk drive, and a dot matrix printer (EPSON, ALPS, or compatible). Software requirements include DOS 2.0 or higher, the CPSR Model Program Disks, and the SIDEWAYS package for printing spreadsheets lengthwise on the printer.

While in depth knowledge of Personal Computers (PCs) and the Disk Operating System (DOS) is not required to operate the model, review of a few basic DOS commands in the manual is recommended. The FORMAT command is used to prepare a new diskette for data storage. ***All diskettes must be prepared with the FORMAT command before they can be used to store data.*** The COPY command, used to copy PC files, and the DIR command, used to list the files on a disk, should also be reviewed. The following are examples of DOS commands (issued from the DOS prompt) that may be helpful with the model:

- To format a floppy disk in the A: drive (note: any data on the disk in the A: drive will be destroyed)

```
FORMAT A:
```

- To get a list (directory) of files in the current directory (or subdirectory)

```
DIR/P       (lists files a page at a time)
DIR/W       (lists files in wide display mode)
```

- To copy a file FROM one disk TO another

```
COPY C:\CPSR\CPXLABCD.DBF a:CPXLABCD.DBF
  (copies a file from the CPSR subdirectory to a file of the same
   name on the A: drive)
COPY C:\CPSR\CPBKUPLG.DBF C:\CPSR\CPXLABCD.DBF
  (copies the current over $100K backup file from the CPSR
   subdirectory to an over $100K file for a company whose four letter
   abbreviated name is ABCD)
COPY C:\CPSR\CPSTATS1.RPT A:CPSTATS1.RPT
  (copies current statistical summary report 1 to the A: drive)
```

- To delete a file from a disk (all data on file will be lost)

```
DEL C:\CPSR\CPXLABCD.DBF   (deletes file from the CPSR subdirectory)
DEL A:CPXLABCD.DBF         (deletes file from the A: drive)
```

All CPSR files will be stored on the laptop in the hard disk drive. The hard disk is called Drive C: and the names of all files located on the hard disk are given the prefix "C:" to show their location. Similarly, the floppy disk drive is called Drive A: and the names of any files located on it are given the prefix "A:". The hard disk holds over 20 million characters of information so it is convenient to divide it up into smaller sections called subdirectories to keep track of files. CPSR files are stored on Drive C: in a subdirectory named "\CPSR\".

Contractractor Purchasing System Review (CPSR)

Contractor Baseline Data Input Model Users Guide

Version 3.0

July 1989

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CONTENTS

LIST OF FIGURES

I. INTRODUCTION

The Contractor Baseline Data Input (CBDI) model allows contractors to provide information to DCAS Region Offices prior to a Contractor Purchasing System Review (CPSR). The model is menu driven and helps collect the information required to start a review in a standardized PC file format. The model runs on any IBM compatible PC with MS DOS 2.1 or higher, 512K of system memory, a hard disk, and a 3.5 inch floppy disk drive (5.25 inch low density is an acceptable alternative). For contractors with the required information already in machine readable form, a file layout is provided in Appendix A which gives specific instructions on the required format.

The purpose of this guide is to familiarize users with the capabilities of the model. It will detail installation procedures, define system requirements, discuss the various data files used and created, and outline the capabilities of each of the menu options. Part III is a quick reference guide which provides answers to many basic questions with step by step procedures.

II. INSTALLING THE MODEL

All program files will be stored on the PC in the hard disk drive. Before installing the model on your computer, make sure it is set up as shown in the Owners Manual. The word <enter> will be used in this guide any time he user is required to press the enter key. Double quotes " " will be used to highlight required keystrokes. The actual double quote marks should not be typed. To install the model:

1. Turn the computer on (DOS should be installed on the hard disk).
2. Put the CBDI MODEL PROGRAM DISK in the A: drive (Floppy).
3. At the C> prompt, type "A:<enter>".
4. Type "CBDIINST<enter>".
5. Follow the instructions on the screen.

When the install program is completed, the model will start automatically. In the future, to start the model:

1. Type "CD\CBDI<enter>" to change to the correct subdirectory.
2. Type "CBDI<enter>" to begin the program.

III. CBDI MODEL QUICK REFERENCE GUIDE

This section is a quick "How to" reference which answers typical questions. "<enter>" will be used throughout the guide to mean 'press the enter key'. Double quotes " " will be used to highlight specific keystrokes required. The actual double quote marks should not be typed. The following are basic model questions with step by step answers and procedures:

HOW DO I INSTALL THE MODEL ON MY PC OR LAPTOP?

1. Turn on the PC (make sure DOS is installed and running)
2. Put CBDI PROGRAM DISK in the A: drive
3. Set the default disk drive to A: by typing "A:<enter>"
4. Start the install program by typing "CBDIINST<enter>"
5. Follow the on screen instructions.

HOW DO I START ENTERING DATA?

1. Decide on a four character abbreviation for the name of your company.
2. Turn the computer on.
3. Type "CD\CBDI<enter>" (This changes to the CBDI subdirectory).
4. Type "CBDI<enter>" to start the program.
5. Select option 1 to start inputting data.
6. Enter the four character abbreviated company name.

HOW CAN I GO BACK TO THE TOP OF THE CURRENT SCREEN TO CHANGE A MISTAKE I MADE?

1. Finish entering the rest of the data on the current screen.
2. When the Confirmation Area is displayed at the bottom of the screen, type "N" (the <enter> key should not be pressed).
3. This will return you to the top of the current screen. Your previous responses will be the defaults.

HOW CAN I CORRECT A MISTAKE I MADE ON A PREVIOUS SCREEN?

1. At the bottom of each screen, the CONFIRMATION AREA, select "B".
2. A menu will appear which will ask you to select the screen to return to.
3. Select the number corresponding to the desired screen.
4. The model allows you to return to the beginning of the purcgase order record or the dates input screen.
5. Advance to the place the mistake was made by pressing "<enter>". The <enter> key confirms all previously entered data but you must press "Y" to advance through the CONFIRMATION AREA.
6. After the mistake has been corrected, continue confirming answers with the <enter> key.

HOW CAN I CORRECT A MISTAKE I MADE ON A PREVIOUS RECORD?

1. From the main menu, select option 2 to MODIFY a record.
2. When the MODIFY RECORD SELECTION AREA menu is displayed, press the number that corresponds to the method of record selection you want.
3. Advance to the place the mistake was made by pressing "<enter>". The

<enter> key confirms all previously entered data and also advances through the CONFIRMATION AREA.
4. After the mistake has been corrected, continue confirming answers with the <enter> key.

HOW DO I PREPARE FILES FOR THE DCAS REGION OFFICE?

1. Use the model to enter the required data.
2. Select option 4 from the main menu to create an ASCII file from the data you have entered.
3. Use menu option 3 to enter your company's sales data.

HOW CAN I PREPARE FILES FOR THE DCAS REGION OFFICE IF I ALREADY HAVE THE REQUIRED INFORMATION ON COMPUTER?

1. Appendix A gives the required format of the main data file.
2. A file in this exact format can be created on your computer and downloaded to a 3.5 inch diskette.
3. Obviously, some programming will be required to download the required data from your computer system to a floppy diskette in the correct format. However, this is a onetime effort which need not be repeated when the program is run for future reviews. This will save time.
4. The model should be used to collect the required company sales data using menu option 3.

WHICH FILES DO I SEND TO THE DCAS REGION OFFICE?

1. Two files should be sent to the region office: CBDI*????*.TXT and CPMV*????*.MEM where *????* is the four character abbreviated company name assigned by the user.
2. The files should be transferred on a 3 1/2 inch floppy diskette, formatted with MS DOS 2.1 or greater in low density.

IV. CBDI FILES

While the model names and accesses files automatically, some knowledge of how files are named is essential. The four character abbreviated company name assigned by the user, is the basis for data file names.

There are three major data files created by the model. All files are stored in a subdirectory named 'C:\CBDI\'. The main data file begins with the letters 'CBDI' followed by the four characters abbreviated company name assigned by the user. The file ends with the extension '.DBF'. This file will contain 22 fields of information about each purchase order entered.

The model translates the information in the main data file above to a standard ASCII file. This file is named 'CBDI' followed by the abbreviated company name with the extension '.TXT'. This file contains the same basic information in the main data file in a slightly more generic format.

A specialized memory file is also created by the model. This file contains company sales data entered with option 3 from the main menu. The file is named 'CPMV' followed by the abbreviated company name and has the extension '.MEM'.

As examples, the model will create the following files for a company with a four character abbreviation of 'ABCD':

CBDIABCD.DBF =======> Main database file
CBDIABCD.TXT =======> ASCII file created from the above data file
CPMVABCD.MEM =======> Memory file containing company sales data

All files are stored in the 'C:\CBDI\' subdirectory. The memory file and the ASCII file are the two files which will be sent to the DCAS Region.

V. CBDI MODEL DATA INPUT

A. General Information

The model is designed to minimize the amount of typing required to enter data. Many entries are menu driven. Some require pressing "Y" or "N" for YES or NO or a short answer like a contract number. ***Pressing the <enter> key is required to advance to the next field after any specific data (e.g. contract number) is input but not required when selecting from a menu.*** "<enter>" is required to advance any time a highlighted box on the screen is filled with data. This will become obvious when using the model.

Many edit checks are made to ensure that the data is 'clean' before it is stored in a file. Only capital letters are allowed regardless of whether the "CAPS LOCK" key or the "SHIFT" key is used. If a "Y" or "N" response is expected, no other keystroke will be accepted.

At the end of each data screen, a Confirmation Area will appear asking the user to either type "Y" to continue to the next screen, or "N" to change data on the current screen. Typing "N" lets the user go back to the beginning of the current screen to make corrections. Pressing "Y" is required to advance

to the next screen. Since this is a menu selection, the <enter> key should not be used.

To start the model, turn the computer on, type "CD\CBDI<enter>" to change to the correct subdirectory, and then type "CBDI<enter>". The screen shown in Figure 1 will appear. Press "<enter>" to advance to the main menu. Figure 2 shows the main menu for the model. Each of the menu options will be discussed below. The first step in each of the options will be to identify the desired file by the four character abbreviated company name.

Figure 1

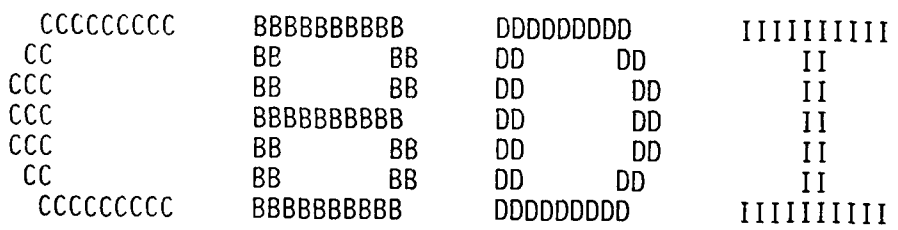
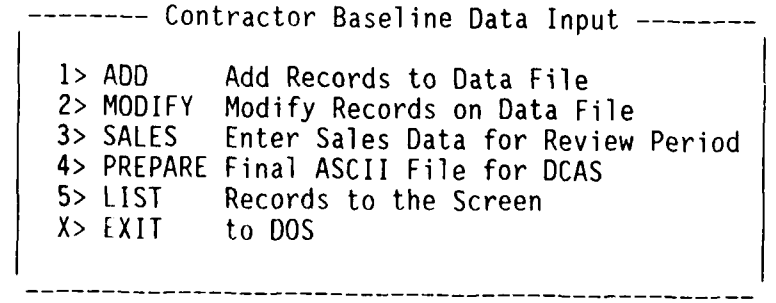


Figure 2



B. ADD Records Option

This is the main option for the model. Before starting a new record, the model shows information on the last record entered. If the file is new and has no records, the screen will indicate that it is a new file. The model collects 22 fields of data including prime contract number and type, purchase order number and type, part number, vendor name, dollar value, and other basic information about each purchase order. Figure 3 is a sample data input screen from this option to collect important dates in the life of a purchase order.

Figure 3

```
          * * * * Determination of Requirements Section * * * *
          * * * *   Requisition Dates/Data Input Area   * * * *

Requisition---
  Original Date                 10/10/86          Lead Time       = 384
  Date Received in Purchasing   10/11/86               (Req-Rec)
  Required Date                 10/30/87          Days Short      = 0
Purchase Order Date             10/15/86               (Prom-Req)
Promised Date                   10/30/87          Days Delinquent = 157
--Quantity              1000                           (Act-Prom)
Actual Delivery Date            04/04/88
*Note* All dates must be in the format MM/DD/YY

************** CONFIRMATION AREA **************
* PRESS Y to keep data & continue              *
*       N to reenter above data                *
*       B to back up through data              *
*       M to enter memo notes                  *
```

At the bottom of most data entry screens a Confirmation Area appears as shown in Figure 3. The user has the opportunity to either advance to the next screen by pressing "Y", change data on the current screen by pressing "N", or back up to an earlier data entry screen by pressing "B".

At the end of the data entry for each record, the screen shown in Figure 4 asks the user to type "N" to exit the ADD option or "Y" to input more records. At this point the model saves the completed record in the data file. If power is lost during the ADD option or the system is somehow interrupted, the only data lost will be the current record. Completed records stored in the data file will not be lost due to power problems.

Figure 4

ABC WIDGETS
P.O. # P0001

This record is complete and has been stored in the database.

Press Y to input more records.
Press N to return to main menu.

C. MODIFY Option

The MODIFY option is nearly identical to the ADD option. MODIFY is used to correct information already stored in the main data file. The user must identify the particular record to be changed and edit the data associated with that record. The MODIFY screens are identical to the ADD screens except they contain previously entered information.

Figure 5 shows the first screen for the MODIFY option which allows the user to select the particular record to edit. The first or last record in a file or a specific record identified by the purchase order number and date can be selected. A record may also be chosen by its place in the file. To find the appropriate record number or purchase order number, the LIST option can be used from the main menu to bring this information to the screen. When already in the MODIFY option, NEXT can be used to advance one record in the file.

In MODIFY, "<enter>" is used to advance through the data confirming previous responses. "<enter>" also moves through the Confirmation Area at the bottom of each screen. This allows the user to advance to the particular field to be edited leaving other entries unchanged.

Figure 5

MODIFY - Record Selection Area

Choose Record To Be Modified

1> FIRST Record in File
2> NEXT Record in File
3> LAST Record in File
4> SPECIFIC Record in File by P.O. Number/Date
5> SPECIFIC Record in File by Record Number
X> EXIT to Main CPSR Data Input Menu

Select desired menu option

D. SALES DATA Option

Company specific sales data is required for each CPSR. This information provides the basis for much of the actual review. It can be edited any time after initial entry by selecting menu option 3. Information should be entered in whole dollars unless specifically noted otherwise.

E. PREPARE FINAL ASCII FILE Option

An ASCII file will be passed to the DCAS Region with baseline review data. Menu option 4 creates this file from information in the main data file. Specific instructions on how to physically transfer the files will be provided by the local DCAS Region office. This option must be used prior to transferring files to ensure that the most recent data is sent.

F. LIST Option

The LIST option lets the user browse the data on the screen. The entire spreadsheet is too large to fit on the screen at one time. The LIST option lets the user page through a 'window' at a time by pressing the U key to move up, the D key to move down, the L key to move left, and the R key to move right. Fifteen records can be viewed on the screen at any one time. By moving right and left, the complete spreadsheet can be viewed through 5 separate windows.

Appendix-A

Structure for ASCII Data File

	Field Name	Width	
1	Contract Number	20	
	Allowable Entries -	Actual Contract Number should be entered if possible	
	-	"OVERHEAD"	
	-	"VARIOUS"	
	-	"COMMERCIAL"	
	-	"TBD" if contract number not yet assigned	
2	Contract Type	6	
	Allowable Entries -	FFP	Firm Fixed Price
	-	CPFF	Cost Plus Fixed Fee
	-	NTE	Not To Exceed or Letter Contract
	-	FPI	Fixed Price Incentive
	-	CPIF	Cost Plus Incentive Fee
	-	CPAF	Cost Plus Award Fee
	-	T/MATL	Time & Materials
	-	LABRHR	Labor Hour
	-	FACILI	Facilities
	-	OTHER	
3	Defense Priority (DPAS) Code	2	
	Allowable Entries -	DO	DO rated contracts
	-	DX	DX rated contracts
	-	NR	not rated
4	Requisition Original Date	6	Format for dates is YYMMDD
5	Req Received in Purchasing Date	6	Format for dates is YYMMDD
6	Req Required Date	6	Format for dates is YYMMDD
7	Purchase Order Date	6	Format for dates is YYMMDD
8	Date Promised	6	Format for dates is YYMMDD
9	Quantity Promised	8	Integer, no decimal places
10	Actual Delivery Date	6	Format for dates is YYMMDD
11	Purchase Order Number	15	
12	Vendor Name	25	
13	Vendor Zip Code	5	
14	Vendor Small Business Code	1	Y if small business or N if not
15	Item Description	20	
16	Part Number	15	
17	Unit Price	12	contains decimal point and cents
18	Purchase Order Type	6	
	Allowable Entries -	FFP	Firm Fixed Price
	-	CPFF	Cost Plus Fixed Fee
	-	NTE	Not To Exceed or Letter Contract
	-	FPI	Fixed Price Incentive
	-	CPIF	Cost Plus Incentive Fee
	-	CPAF	Cost Plus Award Fee
	-	T/MATL	Time & Materials
	-	LABRHR	Labor Hour
	-	FACILI	Facilities
	-	OTHER	

19	Purchase Order Value	9	Integer,no decimals,in dollars
20	Discount Terms	15	
21	Number of Changes Issued	3	
22	Revised Purchase Order Value	9	Integer,no decimals,in dollars
** Total Bytes **		207	

Sample CBDI ASCII File Listing

Position 1 through 72 of the Sample File

```
123456789012345678901234567890123456789012345678901234567890123456789012
------------------------------------------------------------------------

TBD                 FFP   DX87101087101087101087101087101010      10871010
VARIOUS             FFP   DO87101087101088103087102088103O      200881230
OVERHEAD                  NA87101087101087101087101087101010      100871010
DLA500871234567     FFP   DO87101087101588103087103088103O     1000881030
TBD                 FFP   NR87101087101187101587101287101      100871030
DLA9008C34567       CPFF  DO86101086101187103086101587103O     1000880430

------------------------------------------------------------------------
```

Position 73 through 138

```
345678901234567890123456789012345678901234567890123456789012345678
--------------------------------------------------------------------

87-00105        DEF INDUSTRIES          11111NWHATSIT
87-00110        GHI LABS                66666NFLANGESTAT
87-00120        ANY COMPANY             99999YFRAMISTAT
87-00130        LARGER CORPORATION      88888NFLANGE COUPLING
87-00135        ABC COMPANY             11111NWIDGET
87-00150        DEF LTD                 22222NWIDGET

--------------------------------------------------------------------
```

Position 139 through 207

```
90123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
---------------------------------------------------------------------------------------

WHA-1234            1000.00FFP       10000NET 30          0    10000
FLA12345             200.00FFP       40000NET 30          0    40000
FRA-100               10.00FFP        1000NET 30          0     1000
CPL-12345           2000.00FFP     2000000NET 30          0  2000000
WID001                 1.00FFP        1500NET 30          0     1500
WID002               300.00CPFF     3000000NET 30          0  3000000

---------------------------------------------------------------------------------------
```

Note - See Appendix A for specific data fields

CBDI MODEL SYSTEM REQUIREMENTS

The model runs on any standard IBM compatable PC (or laptop computer) with 512 Kilobytes of memory, a hard disk (20 MB is recommended), and a 3.5 inch floppy disk drive (5.25 inch is an acceptable substitute). Software requirements include DOS 2.0 or higher and the CBDI Model Program Disk.

While in depth knowledge of Personal Computers (PCs) and the Disk Operating System (DOS) is not required to operate the model, review of a few basic DOS commands in the manual is recommended. The FORMAT command is used to prepare a new diskette for data storage. ***All diskettes must be prepared with the FORMAT command before they can be used to store data.*** The COPY command, used to copy PC files, and the DIR command, used to list the files on a disk, should also be reviewed. The following are examples of DOS commands (issued from the DOS prompt) that may be helpful with the model:

- To format a floppy disk in the A: drive (note: any data on the disk in the A: drive will be destroyed)

  FORMAT A:

- To get a list (directory) of files in the current directory (or subdirectory)

  DIR/P (lists files a page at a time)
  DIR/W (lists files in wide display mode)

- To copy a file FROM one disk TO another

  COPY C:\CBDI\CBDIABCD.TXT a:CBDIABCD.TXT (copies the ASCII data file from the CBDI subdirectory to a file of the same name on the A: drive for a company with a four character abbreviated name ABCD).
  COPY C:\CBDI\CPMVABCD.MEM a:CPMVABCD.MEM (copies the sales data memory file from the CBDI subdirectory to a file of the same name on the A: drive for a company with a four character abbreviated name ABCD).

- To delete a file from a disk (all data on file will be lost)

  DEL C:\CBDI\CBDIABCD.TXT (deletes file from the CBDI subdirectory)
  DEL A:CBDIABCD.TXT (deletes file from the A: drive)

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CONTRACTOR PURCHASING SYSTEM REVIEWS (CPSRs) DETERMINE THAT THE SYSTEMS AND PRACTICES USED BY CONTRACTORS PROVIDE MAXIMUM PROTECTION TO THE GOVERNMENT. THEY HELP ENSURE THAT CONTRACTORS CONFORM WITH PUBLIC LAW, FEDERAL ACQUSISITION REGULATIONS (FARs), CONTRACT CLAUSES, AND EFFECTIVE INDUSTRIAL PURCHASING PRACTICES. CONTRACTORS WITH OVER $10 MILLION IN NEGOTIATED GOVERNMENT CONTRACTS ARE REVIEWED. THE DEFENSE LOGISTICS AGENCY (DLA) REVIEWS OVER 600 CONTRACTORS AND COMPLETES ABOUT 500 CPSRs EACH YEAR. THE PURPOSE OF THIS PROJECT WAS TO DEVELOP A SMART LAPTOP COMPUTER BASED MODEL TO ASSIST REGION ANALYSTS PERFORM CPSRs. A KNOWLEDGE BASED APPROACH WAS USED FOR SEVERAL REASONS. DLA HAS EXPERIENCED DIFFICULTY HIRING, TRAINING, AND *RETAINING PURCHASING ANALYSTS. CPSRs ALSO* REQUIRE A VAST AMOUNT OF CONTRACTING KNOWLEDGE. THE SYSTEM WAS DESIGNED TO MAKE APPLICABILITY DECISIONS AND ENSURE THE PROPER TOPIC REVIEW SEQUENCE. THE OVERALL GOAL IS TO PROVIDE EACH CPSR ANALYST WITH INFORMED ASSISTANCE AND TO GUIDE THE REVIEW PROCESS.

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